



## Land Use Caucus Meeting

### December 12, 2012

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#### Meeting Purpose:

- The California Water Plan (CWP) Land Use Caucus is a statewide topic-based workgroup designed to support development of CWP Update 2013 through in-depth discussions and deliberations of Land Use topics and issues. The Land Use Caucus will identify and expand information associated with Land Use related to statewide and regional needs, opportunities and challenges. Meeting materials can be found online here:  
<http://www.waterplan.water.ca.gov/materials/index.cfm?subject=dec1212>

#### Meeting Goals:

- To hear preliminary findings and review the 2009 Water Plan Land Use Decision Tool Pilot Project Results

#### Attendance: (See Attached)

#### Announcements:

- The next Land Use Caucus Meeting will likely be scheduled for March 2013, and will include a review of the draft report from the DWR-SSU Integrated Water Management Team.

#### Action Items:

#	Item	Owner	Due Date
1	Post the Stormwater Regulations spreadsheet that was distributed during the presentation to the web after the meeting.	Jennifer Kofoed, Hoa Ly	ASAP
2	Investigate the idea of the Land Use caucus developing a working group to assist the DWR-SSU Integrated Water Management Team.	Elizabeth Patterson, Alex Hinds, Allison Lassiter	March 2013

### MEETING SUMMARY

#### Welcome and Greetings:

The Executive Facilitator for the Water Plan, Lisa Beutler, led introductions for the Land Use Caucus Meeting and welcomed the webinar participants.

Elizabeth Patterson thanked the group, and noted that rollout of the first public pilot project recommended in the 2009 California Water Plan was underway. Ms. Patterson gave a presentation on the background of Land Use in the California Water Plan and thanked the Governor's Office of Planning and Research (OPR) for their work on the draft 2013 Land Use Resource Management Strategy (RMS).



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#### **Overview of the Land Use Pilot Study:**

Ms. Patterson began the meeting with a description of the Water Management tool, and why it is needed. She noted that one of the goals of the RMS tool was to quantify cost.

Alex Hinds (Sonoma State University) introduced the rest of the project team, noting that the pilot project was moving beyond regulations.

Allison Lassiter, UC Berkeley, began the presentation on the Land Use Pilot Study. She emphasized the goal of this project was to create a tool, that could be used at multiple locations. Ms. Lassiter gave an overview of the purpose of the Pilot Project, the approach, the preliminary results, and a discussion of the next pilot project. She noted that existing tools leave a lot to be desired in terms of scale and usability for non-technical people. The idea with this tool is create an open data tool using Microsoft Excel, which could be modified as needed for local land use development.

Ms. Lassiter described the study area in Sonoma County, and the various spatial scales considered. She then described the seven comprehensive metrics, going through the metrics used in the model. Nathan Andrews (Sonoma State University) described the Cost of Implementation Metrics.

1. Imperviousness of surfaces
2. Stormwater
3. Outdoor Water Requirement
4. Greenhouse Gasses
5. Cost of Implementation
6. Cost over 50 years
7. Cost over 100 years

Brian Gunn (Sonoma State University) continued the presentation with slides on Selecting Case Studies, and shared some of the characteristics that differed in the different case study sites. He distributed a chart that showed differences in Stormwater Regulations that were implemented in each of the case study regions. He described “treatment controls” as engineering solutions that slow stormwater runoff down in velocity. Brian continued with a discussion on tool inputs – land cover, and water infrastructure – determined through GIS, and aerial photos. This process included ground truth-ing of specific sites. This data collection fed a GIS digitization process. Not all of the case study neighborhoods are fully constructed, and data will continue to be updated.

Laura O’Dea (Sonoma State University) presented on the “One Planet” Lots that were incorporated into the model. The one planet neighborhoods included rain barrels, and were LEED certified construction. One Planet is designed to be a self-sustaining development in terms of water use efficiency.

#### **Findings:**



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Allison Lassitter continued the presentation with a description of preliminary results. She displayed a graph and table showing the Land Cover results compared to the 4 case study areas. Preliminary results showed that the SUSMP development, despite being constructed during stormwater requirements, had the most impervious surfaces. The *OneWorld* development had the least, but was the most expensive. The *Greenpoint* development was the least expensive.

One stakeholder suggested showing deferred maintenance costs over time in the model.

Summarized findings:

- Minimizing impervious surfaces is an important component of reducing cost.
- It's better to adapt, than to mitigate, less additional infrastructure is best.

Allison then discussed infrastructure choices that planners must consider. Some upfront green infrastructure costs can be reflected in local property values (i.e. a park that doubles as a stormwater detention basin raises the value of homes around it in Greenpoint). She also noted that some of the “lifecycle costs” were not always accounted for in green infrastructure.

Opportunities and Challenges for planners include aligning cost incentives, and linking upstream and down stream grey infrastructure to new Low Impact development. Actions recommended from the study include:

- Reduce hardscape
- Limit building footprints
- Plan for water-smart landscapes and developments

Discussion followed the presentation:

- One attendee noted that a middle ground to explore may be requirements around detention basin that go beyond 24 hours, but less than 100 years. (Larger than the neighborhood scale, but smaller than the city scale) Another echoed this “community scale” and its need to be considered more often in planning. Elizabeth Patterson felt that this discussion was one of the positive results of the model.
- One participant expressed the need for recreation to be integrated into stormwater detention basins. Alex Hinds noted that this was often because developers wish to use less land for these features, so they make them steeper in grade. This increased steepness in the detention basin often means it must be fenced for safety. Alex Hinds also noted the need for allowing developers to potentially build higher in order to build up density and flexibility. Elizabeth Patterson described the reasoning for choosing residential development over mixed use development.



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- A participant described the model as a wonderful tool, and the fact that it focuses on traditional development types. This highlights the need to change the traditional thinking around developments. She also commented that the “downspout” example was not the best choice for comparison and contrast. She noted that storage is the key to success.
- One participant stated that the big piece that is missing is the decision to confine research to traditional neighborhoods. There needs to be a counterpoint to add the additional dimension for comparison. Allison Lassiter noted that resource consumption per area would likely be calculated in the next steps, and then by person if the population data becomes available at the right level. The commenter described some of the challenges and opportunities that change in mixed use development.
- One stakeholder commented on the opportunities/challenges slide: How do you plan on presenting the dialogue to developers? How can we frame these issues around dis-aligned incentives, and aligning incentives? Elizabeth Patterson noted that the meeting ground is alternative site planning proposed by local land use authorities, and around the decision makers who are concerned with cost. Ms. Patterson also noted that lining up demographic issues is also important to the overall narrative.
- “Cost is different than the willingness to pay. I wonder if costs could be presented in way that also shows the benefits. Some are willing to pay for the additional benefits, especially when they can meet additional objectives. I would really like to praise the tool for highlighting the impact of stormwater regulations on water supply. I don’t think people are thinking about the true impact of those regulations. I think it would be amazing to build in the water quality impacts as well – we may already see it getting worse in Southern California. Also, I think planners are more concerned about the 100 to 500 year storm than the 25 year storm. Also, I think that the discretion of the landowner as an individual is shown here in the model. “
- Elizabeth Patterson agreed with one comment that the benefit to individual water users is a very important story. There are many different scales that planners must consider when making decisions.
- One stakeholder complimented the model, and noted its granularity. She thinks that residential development presents some of the best opportunities to improve, but it turns out the residential dwellers can be very poor farmers – using too much water, nitrate, and fertilizer.

#### Questions of Clarification:



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Q: Would it be possible to show the difference in individual people's water bills based on these issues?

A: We could, this model is open source – so that opportunity is available for someone to do.

Q: What about showing water quality impacts?

A: That would be tricky, and I can't comment on the feasibility on anything other than a rough connection.

Q: Do you have plans to run a scenario for in-fill development?

A: Not within this project, but the tool will be out there to be used for that. The strategy will be different for each study because in California we are trying to engineer functions of the natural watersheds back into our environment.

#### **Next Steps:**

This tool will be presented in a status report tomorrow to the Public Advisory Committee. Also, a presentation will be scheduled with the SASC, and the Plenary 2013. The Land Use caucus could potentially develop a working group to assist with the team.

- Continued development of the tool.
- Continued conversation on integration with other models and efforts, including the Urban Footprint Model at OPR, and the Adaptive Management Tool at OPR.
- Continued integration with future presentations and people/ Additional audiences:
  - Staff training for public works staff
  - CSAC, League of cities, and Building Industry
  - Association of Landscape Architects (Cheryl Essex)
  - American Planning Association (Al Herson)
  - Flood Audiences (with a list of disclaimers that it adds value to floodplain management)
- Policy development chapters in the California Water Plan could benefit from this tool. It could be part of the conversation (Dave Bolland and Iovanka Todt)

Iovanka Todt described California groundwater regulations coming into effect, and that the groundwater world is going to be “taking off” – including additional state resources looking at developmental impacts on groundwater resources.

Al Herson noted that the next step may be a beta version that could be provided to future presentations.



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Announcement: The first draft of the report is scheduled to be finished soon. The caucus members can get it electronically at the end of January; or the team can schedule a land use caucus for review and comments.

Allison Lassiter closed the meeting by noting that feedback is always welcome to the team.

### Meeting Adjourn

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### Attendance:

*Note: (W) = Attended via Web*

### Participants

1. Nathan Andrews, SSU
2. David Bolland, ACWA
3. Karen Buhr, CARCD
4. Celeste Cantu, OWOW (W)
5. Harvey Edwards, USBR (W)
6. Cheryl Essex, CA State Parks
7. Brian Gunn, SSU
8. Al Herson, APA
9. Alex Hinds, SSU
10. Nick Konovaloff, RCRC
11. Allison Lassiter, U.C. Berkely
12. Jeff Mankey, OPR
13. Laura O'Dea, SSU
14. Ben Rubin, OPR
15. Iovanka Todt, FMA

### Meeting Staff

16. Lisa Beutler, Executive Facilitator
17. Joshua Biggs, Note Taker
18. Hoa Ly
19. Elizabeth Patterson